

TRANSCRIPT OF RECORD

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM 1922

No. 208

OLGA GATHMANN FOLEY, ADMINISTRATRIX OF THE
ESTATE OF LOUIS GATHMANN, DECEASED, APPEL-
LANT,

THE UNITED STATES

APPEAL FROM THE COURT OF CLAIMS

FILED OCTOBER 29, 1922.

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SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1921.

No. 601.

OLGA GATHMANN FOLEY, ADMINISTRATRIX OF THE
ESTATE OF LOUIS GATHMANN, DECEASED, APPEL-
LANT,

vs.

THE UNITED STATES.

APPEAL FROM THE COURT OF CLAIMS.

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Court of Claims.

No. 33052.

OLGA GATHMANN FOLEY, Administratrix of the Estate of Louis Gathmann, Deceased.

I. History of Proceedings.

The original petition herein was filed April 17, 1915, in the name of Louis Gathmann.

On January 4, 1918, on motion made therefor and allowed by the court, Olga Gathmann Foley, as Administratrix of the Estate of Louis Gathmann, deceased, was substituted as plaintiff herein.

On July 31, 1919, by leave of court, the plaintiff filed an amended petition, which is as follows:

II. Amended Petition.

Filed July 31, 1919.

To the Chief Justice and Judges of the United States Court of Claims:

Your petitioner respectfully represents and shows:

1. Claimant is the administratrix of the estate of Louis Gathmann, deceased. Claimant is a citizen of the United States, a resident of the District of Columbia; has at all times borne true allegiance to the Government of the United States, and has not in any way voluntarily aided, abetted, or given encouragement to rebellion against the said Government.

Claimant's decedent was a citizen of the United States for many years and, at the dates hereinafter mentioned, he was a resident of the District of Columbia, and during his citizenship he at all times bore true allegiance to the Government of the United States, and at no time or in any way had he voluntarily aided, abetted, or given encouragement to rebellion against the said Government.

2 This claimant has been substituted as party claimant in lieu of Louis Gathmann, deceased, on motion duly made Jan. 4, 1918.

2. For a year or more prior to March 24, 1903, decedent and Admiral Charles O'Neil, United States Navy, then Chief of the Bureau of Ordnance, United States Navy, had frequent conferences on the subject of improving the methods of drying smokeless powder, the United States being at that time and since engaged in the manufacture of smokeless powder at its powder plant at Indian Head, Maryland, and on March 24, 1903, pursuant to the last previous conversation between them on that subject, decedent delivered to Admiral O'Neil, as Chief of the Bureau of Ordnance, the following proposition in writing:

1839 Vernon Ave., N. W.,
Washington, D. C., March 24, 1903.

SIR:

The undersigned has made an invention "Method of drying materials," for which patent has been filed Feb. 9, 1903, Series No. 142,653.

Now, in consideration of the Navy Department building an apparatus for testing this method, without expense to me, I hereby give the Navy Department the option of using my method of drying materials, if they find it to their advantage, by paying to me, my heirs, or my legal representatives, \$0.01 (one cent) for each pound of material dried by my method.

Very respectfully,

LOUIS GATHMANN.

Admiral O'Neil,
Chief of Bureau of Ordnance.

With the writing aforesaid, decedent caused to be delivered to the Chief of the Bureau of Ordnance a plan or drawing for an experimental apparatus.

Thereafter Admiral O'Neil, as Chief of the Bureau of Ordnance, caused to be delivered to decedent the following acceptance and agreement in writing:

3 Address Bureau of Ordnance, Navy Department, and refer to No. 3585.

Washington, D. C., March 26, 1903.

SIR:

Referring to your communication of March 24th, 1903, offering the Navy Department the option of using your method of drying materials, on payment of one cent per pound on materials so dried:

The Bureau has to inform you that it accepts your proposition, and has ordered one experimental apparatus for drying smokeless powder, constructed in accordance with plan submitted by you. This apparatus will be tested without expense to you, and, if it works satisfactorily to the Bureau, the Bureau agrees to pay you, your heirs or legal representatives, one cent for each pound of smokeless powder dried by the method covered by your application or applications filed or to be filed with the U. S. Patent Office, provided a patent or patents is or are issued to you therefor.

Respectfully,

CHARLES O'NEIL,
Chief of Bureau of Ordnance.

Mr. Louis Gathmann,
1839 Vernon Avenue,
Washington, D. C.

4 3. The United States ordered constructed one experimental apparatus for drying smokeless powder, which was constructed in accordance with the plans submitted by decedent, and

after it was installed and ready for experimental use decedent visited the powder works at Indian Head frequently and gave his time and advice to the development of the process in a practical way, all at his own expense and without charge.

4. February 9, 1903, decedent filed in the United States Patent Office his application for patent on the method of drying materials, Serial No. 142,653, and he was granted a patent thereon June 28, 1904, No. 763,387. The drawing of the plan for an experimental apparatus that decedent caused to be delivered to the Chief of the Bureau of Ordnance March 24, 1903, was the same drawing which he had filed February 9, 1903, with his application for patent above described. Subsequently decedent continued his study and investigation of the subject, and January 22, 1904, he filed his application, Serial No. 190,224, in the United States Patent Office, and June 28, 1904, letters patent, No. 763,388, were issued to him covering a method of drying substances.

The applications for patents above described were those that were in the mind of the Chief of the Bureau of Ordnance when he wrote the letter to decedent March 26, 1903, and it was pursuant to that letter that decedent filed his application January 22, 1904.

5. Subsequent to June 28, 1904, and particularly at the times hereinafter specified, and at the powder works of the United States at Indian Head, Maryland, the United States made use of the processes and methods covered by the above described patents in the manufacture of smokeless powder, as follows:

5	Dates.	Pounds.
	April 17 to June 30, 1909.....	250,197
	July 1, 1909 to June 30, 1910.....	9,660,686
	July 1, 1910 to June 30, 1911.....	2,000,000
	July 1, 1911 to June 30, 1912.....	2,470,000
	July 1, 1912 to June 30, 1913.....	2,765,000
	July 1, 1913 to June 30, 1914.....	3,352,388
	July 1, 1914 to April 17, 1915.....	3,176,790
	Total	23,675,061

6. By reason of the premises, and for the use of the processes and inventions mentioned for and during the dates above specified, the United States is indebted to the estate of the decedent in the sum of \$236,750, no part of which has been paid.

7. The estate of the decedent is the sole owner of this claim, no person or corporation is interested therein, and no assignment or transfer of the claim or any part thereof or interest therein has been made.

8. The decedent's estate is justly entitled to the amount herein claimed from the United States for the period of time specified above, as this administratrix is advised and believes, and that there are no just credits or set-offs to be allowed, as she is advised and believes.

Wherefore, claimant asks judgment against the United States for Two hundred thirty-six thousand seven hundred and fifty dollars (\$236,750).

DUDLEY & MICHENER,
Attorneys of Record.

CHARLES J. PENCE, *Of Counsel.*

6 DISTRICT OF COLUMBIA, ss:

Louis T. Michener, of lawful age, being by me first duly sworn according to law, deposes and says that he is a member of the firm of Dudley & Michener, who are attorneys of record for claimant by power of attorney herein filed; that he knows the contents of the above amended petition; that the material averments therein contained are true in substance and in fact as he is informed and believes; and he makes this affidavit on such information and belief.

LOUIS T. MICHENER.

Subscribed and sworn to before me this 28th day of July, 1919.
[SEAL.]

DAVID WOLF,
Notary Public.

III. *General Traverse.*

No demurrer, plea, answer, counterclaim, set-off, claim of damages, demand, or defense in the premises, having been entered on the part of the defendants, a general traverse is entered as provided by Rule 34.

7 IV. *History of Further Proceedings.*

On December 10 and 11, 1919, the case was argued and submitted on merits by Mr. Chas. J. Pence, for plaintiff, and by Mr. Wm. D. Eakin, for defendant.

On March 1, 1920, the Court filed tentative findings of fact.

On May 5, 1920, the case was argued and submitted on tentative findings of fact by Messrs. Chas. T. Pence and Louis T. Michener, for plaintiff, and by Mr. Melville D. Church, for defendant.

V. *Findings of Fact, Conclusion of Law, and Opinion by Campbell, Ch. J., and Dissenting Opinion by Booth, J.*

Entered May 31, 1921.

This case having been heard by the Court of Claims, the court, upon the evidence, makes the following

Findings of Fact.

I.

The plaintiff is the administratrix of the estate of Louis Gathmann, deceased, and is a citizen of the United States, residing in the District of Columbia.

The plaintiff's decedent was a citizen of the United States for many years and, at the dates hereinafter mentioned, was a resident of the District of Columbia.

The plaintiff has been substituted as party plaintiff in lieu of the said Louis Gathmann, deceased, on motion duly made January 4, 1918.

II.

In the manufacture of smokeless powder the grains are formed by forcing a plastic mass of the prepared powder material through dies and then cutting the resulting macaronilike strings into short pieces. The plastic condition of the material is due to the presence of ether and alcohol, used in the material to facilitate the process of manufacture. As the material comes from the dies it contains about 40 per cent moisture, composed of ether and alcohol, called the solvent. This solvent must be reduced, by drying, before the powder is ready for use, the reduction of solvent being from about 40 per cent to between 4 and 7 per cent, according to caliber. This drying process required several months' time, the ether and alcohol constituting the solvent were expensive, and the reduction of the drying period and the recovery and saving of the solvent for reuse were problems especially engaging the minds of Government officials and others interested in the manufacture of such powder.

8 As early as the year 1900 the Government, in its manufacture of smokeless powder, had used, along with other methods of drying, what was known as the closed-circuit method of drying and solvent recovery. In this method there is, generally speaking, a closed circuit embracing a heating chamber, a powder chamber, and a condensing chamber, with the necessary connecting pipes or conduits and means for effecting circulation of the air in the circuit, as by fan or by gravity. In operation the warm air from the heating chamber passes on to the powder chamber, where it absorbs solvent from the "green" powder, then passes on to the condensing chamber, where the solvent carried by it is condensed to liquid form, the air then passing on to the heating chamber again for reheating and repetition of the cycle.

When the powder is newly made, or "green," the solvent is given off rapidly; but as the percentage of the solvent in the mass is reduced, it volatilizes less rapidly and comes off less freely. When the solvent is reduced to about 10 per cent, this closed-circuit process is discontinued and the drying of the powder is completed in the ordinary drying houses.

III.

The apparatus used by the Government, in the year 1900, in its said method of drying and solvent-recovery is illustrated by the drawing, Exhibit 1, by this reference made a part of these findings of fact. The plans for this apparatus were secured by the Government from the California Powder Works, of California, by whom the apparatus was understood to have been originated.

In this apparatus, a number of small powder cans, with a capacity of about 100 pounds of powder each, were connected at their bases by pipes with a main pipe leading to the bottom of a condensing chamber. From the top of the condensing chamber, a pipe continued on to a heating chamber, and from there to a fan chamber, from whence it proceeded and connected by different branch pipes with the tops of the powder cans, thus forming a closed circuit.

Referring to said Exhibit 1, the fan drew hot air from the heater, drove it through the air pipe to the tops of the powder cans, through which cans it descended, absorbing solvent from the powder, passing on through another pipe to the condenser, where the solvent was condensed and drawn off in liquid form, the air passing through the pipe back to the heater and fan to repeat the cycle.

Following this solvent recovery treatment, the powder was placed in drying houses and dried to a proper condition merely by allowing air to circulate over and through it.

This solvent recovery process, used by the Government in 1900, was discontinued, after about a year's use, because of the amount of leakage due to the number of joints connecting the numerous small powder cans used.

IV.

The said Louis Gathmann was an inventor. He had been interested in quite a number of ordnance matters and was familiar with many of them. He was acquainted with Admiral O'Neil, Chief of Ordnance, Navy Department, and they were on friendly terms for six or more years prior to 1903. He frequently went to the Navy Department and discussed with Admiral O'Neil questions in which he was interested. He was interested in improving the method and expediting the manufacture of smokeless powder, and had discussed that question with Admiral O'Neil. The Government at times had two systems, one for merely drying by hot air, and the other for both drying and recovery of the solvent. Gathmann claimed a method that would do both in a very much shorter time and proposed that a test be made. The conversations between Gathmann and Admiral O'Neil, with reference to smokeless powder, had gone on for a year or more prior to March 24, 1903. On February 9, 1903, he filed in the United States Patent Office an application, serial number 142,653, for letters patent on a method of drying materials of various kinds. Having proposed that the Government experiment with the same, Gathmann, in March, 1903, submitted a drawing or working plan of the apparatus, with a description, together with an explanation of what he thought some of the advantages of his method were, to Admiral O'Neil, who examined them in connection with another officer who had technical knowledge, and indicated to Gathmann a willingness to experiment with his apparatus and process, to determine whether it would accomplish the results claimed for it. Thereafter Gathmann delivered to Admiral O'Neil, as Chief of Bureau of Ordnance, a letter, set forth in the next finding

V.

"SIR: The undersigned has made an invention, 'Method of drying materials,' for which patent has been filed Feb. 9, 1903, Series No. 142,653. Now, in consideration of the Navy Department building an apparatus for testing this method, without expense to me, I hereby give the Navy Department the option of using my method of drying materials, if they find it to their advantage, by paying to me, my heirs, or my legal representatives \$0.01 (one cent) for each pound of material dried by my method."

With said letter Gathmann caused also to be delivered a plan or drawing for such experimental, or testing apparatus.

Amiral O'Neil, as chief of said Bureau of Ordinance, replied to said letter of Louis Gathman, on March 26, 1903, as follows:

"SIR: Referring to your communication of March 24, 1903, offering the Navy Department the option of using your method of drying materials, on payment of one cent per pound on materials so dried, the bureau has to inform you that it accepts your proposition, and has ordered one experimental apparatus for drying smokeless powder, constructed in accordance with plan submitted by you. This apparatus will be tested without expense to you, and if it works satisfactorily to the bureau, the bureau agrees to pay you, your heirs, or legal representatives one cent for each pound of smokeless powder dried by the method covered by your application or applications filed or to be filed with the U. S. Patent Office, provided a patent or patents is or are issued to you therefor."

In the said explanation by Gathmann of his said method, he verbally represented to Admiral O'Neil that said method would greatly reduce the time required for the drying of the powder, and this representation furnished the chief inducement to Admiral O'Neill to enter into the agreement shown by the letters set forth above.

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VI.

Pursuant to the agreement between Admiral O'Neil and the decedent Gathmann, shown by said letters, the defendants, under the direction and supervision of Gathmann, at their own expense constructed and exhaustively tested at their Indianhead (Md.) powder plant the experimental apparatus and method so proposed by Gathmann. Said apparatus and method were substantially the same as those shown and described in said Gathmann's United States Letters Patent No. 763,387 subsequently granted to him and his assignees of a one-fourth interest upon his said application No. 142,653 of February 9, 1903. A copy of said patent is by this reference made a part of these findings of fact as Exhibit 2.

The said tests began in October, 1903, and continued until in October, 1904, during which time reports of the results obtained by the tests, comparative and otherwise, were periodically made by the

Government officer under whom the tests were being conducted, comparison of results being made with results obtained from concurrent drying operations under the regular Government method. The instructions and wishes of Gathmann in the conducting of the tests were fully complied with except in one instance, as follows: In the regular operation of the Government powder plant where the tests were conducted the plant closed down on Sundays and holidays. Before the commencement of the tests Gathmann was informed of this fact and expressed himself as satisfied with this arrangement. After the tests had continued for some time, however, and failed to show advantageous results in the saving of time he desired a continuous and unbroken operation of the apparatus. This was not acceded to by the Government authorities, as it involved additional force and expense for operation on Sundays and holidays, and the testing operations continued as before.

In said tests the time required for the drying of the powder was not reduced, nor does it appear that the former methods used and results attained by the Government in drying and solvent recovery were otherwise improved upon. The said Gathmann apparatus and method did not work satisfactorily to the Bureau of Ordnance of the Navy Department, and at the close of the tests Gathmann was so notified by a letter from the Acting Chief of Ordnance, reading as follows:

"Referring to your apparatus for drying powder, installed at the naval proving ground for trial: The bureau forwards herewith a copy of the report made by the inspector of ordnance in charge of that station for your information. After carefully considering this report the bureau is of opinion that this apparatus has failed to demonstrate anything that would warrant further experiment with it, and the bureau has instructed the inspector of ordnance in charge of the naval proving ground that, when the drier can hold no more samples the whole amount be put in the dry house until dried to the proper volatiles."

No change was made in the Government's solvent recovery and drying processes as a result of this test of Gathmann's said method.

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VII.

On June 28, 1904, there was granted to the said Louis Gathmann and assignees, upon said application No. 142,653, of February 9, 1903, his said United States patent No. 763387, set forth as Exhibit 2 to these findings. Also on said date there was granted to Gathmann and his assignees of a one-fourth interest therein, United States patent No. 763388, a copy of which is, by this reference, made a part of these findings as Exhibit 3.

Said patents and the applications upon which they were granted were the applications and patents in contemplation by the said Louis Gathmann and Admiral O'Neill in their respective letters of March 24 and March 26, 1903, set forth in Finding V.

VIII.

Beginning in the year 1907, there have been used by the Navy Department at various times, in the manufacture of smokeless powder, drying and solvent-recovery apparatuses and methods illustrated by the drawings set forth as Exhibits 4, 5, and 6 to these findings of fact, which exhibits are by this reference made a part of said findings.

Exhibit 4 illustrates an apparatus and method used beginning about May, 1907, in which a powder can, or container, a fan, a steam-coil heater, and a brine condenser were all connected by intervening pipe sections, the whole forming a closed circuit. The air was heated in the heater, driven by the fan into the powder can at the bottom, passed up through the powder in the can, absorbing solvent from the powder, then out of the top of the powder can and through the pipe into the condenser, where the solvent in the air was condensed and drawn off, the air pressing on to the heater again, to repeat the cycle.

Exhibit 5 illustrates an apparatus and method used from about August 1, 1910, to 1916, known as the box-type method, the apparatus consisting of a vertically partitioned box with a heater in one side, and a condenser, with a powder chamber above it, in the other side, and with connecting air passages at top and bottom between the two sides, or compartments, of the box, thus forming a closed circuit. Air heated by the heater passed upward and through the connecting passage over into the top of the powder compartment, then down through the powder, absorbing solvent from it on the way and descending by gravity to the condenser, where the solvent in it was condensed and drawn off, the air then passing through the connecting air passage at the bottom into the heater compartment, to repeat the cycle. In this method the circulation is gravity circulation, induced wholly by the heating and the cooling of the air in the different parts of the circuit.

Exhibit 6 illustrates an apparatus and method used since 1914, in which the method is substantially similar to the method used by the Government in 1907 (Exhibit 4), the apparatuses, however, being somewhat different in structure.

In the use by the Navy Department of the drying and solvent-recovery devices and methods described in Finding VIII there was no initial or preliminary production of a vapor-laden atmosphere in the powder chamber prior to the beginning of the circulation of the air in the circuit; there was no preliminary circulation of the air in the circuit before the reducing of the temperature and starting condensation in the condensing chamber; there was no intentional variation of the temperature in the condensing chamber; and there was no attempt to maintain a vaporous or vapor-laden atmosphere in the circuit or in the powder chamber, the effort being, on the contrary, to get all the moisture possible out of the air as it passed through the condensing chamber.

X.

The following patents and drawings show the development and prior state of the art to which the decedent's said patents, No. 763387 and No. 763388, relate:

- (1) British patent No. 1112, of 1878, to Smith.
- (2) United States patent No. 245911, of August 16, 1881, to Wood.
- (3) United States patent No. 276405, of April 24, 1883, to Ho-eveler.
- (4) British patent No. 6208, of 1887, to Sutcliffe.
- (5) United States patent No. 355559, of January 4, 1887, to Sargent.
- (6) United States patent No. 363704, of May 24, 1887, to Van Osdel.
- (7) United States patent No. 426,453, of April 29, 1890, to Morton and Andrews.
- (8) United States patent No. 430215, of June 17, 1890, to Maxim.
- (9) United States patent No. 438423, of October 14, 1890, to Peregrine.
- (10) United States patent No. 487827, of December 13, 1892, to Dion.
- (11) United States patent No. 515913, of March 6, 1894, to Larson and Bergstrom.
- (12) British patent No. 19281, of 1897, to Bergstrom.
- (13) British patent No. 30333, of 1897, to Rappold.
- (14) British patent No. 17980, of 1898, to the British Nonflam-mable Wood Co.
- (15) United States patent No. 632508, of September 5, 1899, to Allington.
- (16) British patent No. 6067, of 1899, to Vignon-Danto.
- (17) United States patent No. 653555, of July 10, 1900, to Hart and Ashworth.
- (18) United States patent No. 675070, of May 28, 1901, to Sar-gent.
- (19) United States patent No. 696989, of April 8, 1902, to Mar-shall.
- (20) The drawings constituting Exhibit 1 to these findings of fact, illustrating the apparatus and method of drying and solvent-recovery used by the Government in the year 1900.

Copies of the above patents are hereby made a part of these findings of fact as Exhibits A-1, A-2, A-3, A-4, A-5, A-6, A-7, A-8, A-9, A-10, A-11, A-12, A-13, A-14, A-15, A-16, A-17, A-18, and A-19.

13 XI.

The proceedings in the Patent Office on the applications upon which decedent Gathmann's said patents No. 763387 and No. 763388 were granted are shown by certified copies of the file wrappers and contents in said applications which are by this reference made a part of these findings as Exhibit 7 and Exhibit 8, respectively.

XII.

The said Gathmann patents, No. 763387 and No. 763388, were each granted to Gathmann and his assignees of a one-fourth interest, Eldred P. Dickinson and Somerset R. Waters, of Washington, D. C., pursuant to a deed of assignment by Gathmann of February 3, 1904, conveying an undivided one-fourth interest in the inventions covered by the applications for said patents.

Said deed of assignment provided that none of the parties thereto should grant licenses, or assign any interest in said inventions and letters patent therefor, except by written consent of all the parties, nor separately enter into any business, manufacture, or trade using said inventions except by agreement signed by all the parties; and that all net profits should be divided among them in proportion to their several interests.

Conclusion of Law.

Upon the foregoing findings of fact the court decides that the plaintiff is not entitled to recover, and her petition is therefore dismissed.

Judgment is rendered against the plaintiff in favor of the United States for the cost of printing the record herein, the amount thereof to be entered by the chief clerk and collected by him according to law.

Opinion.

CAMPBELL, *Chief Justice*, delivered the opinion of the court.

The plaintiff relies upon an alleged express contract, which she claims was made between her decedent, Gathmann, and the Government, whereby the latter became bound to pay Gathmann a stipulated amount per pound of smokeless powder dried by Gathmann's method. It is averred that the Government subsequently dried large quantities of smokeless powder by the use of that method.

The facts show that Gathmann and Admiral O'Neil, the Chief of Ordinance, United States Navy, were well acquainted; that they held frequent conversations relative to ordinance matters at different times during a period of five or six years prior to the date of the

correspondence to be stated; that Gathmann was an inventor, and, among other things, had become interested in the subject of a drying process for smokeless powder. Naturally such a subject engaged the attention of the Chief of Ordnance. It appears that the grains of smokeless powder are formed by forcing a plastic mass of material, constituting the powder, through dies and cutting into short pieces the macaronilike strings which result from the forcing process. The material is in a plastic condition, or mass, because of the presence therein of an excessive amount of ether and alcohol. These elements—ether and alcohol—are called the “solvent.” As the powder in its plastic condition comes from the dies it contains about 40 per cent of the solvent, and this percentage must be reduced to between 4 and 7 per cent, according to the caliber, before the powder is ready for use. When the material is newly made or “green” the solvent begins to evaporate and is given off more rapidly than is the case after the evaporation has gone on for a time.

The ether and alcohol being expensive it is desirable to save as much of them as possible for further use. The defendant had been using one or more methods for recovering the solvent which were not satisfactory. It also used a method of drying which took a long time. Gathmann claimed to have discovered a process whereby the solvent could be saved, the time of drying greatly reduced, and thus combine into one process the two methods mentioned. He discussed his plans with the chief of bureau, who became interested in the suggestion and indicated a willingness to have the Gathmann method tested. At that time Gathmann had filed in the Patent Office his application for letters patent for “Improvement in Methods of Drying Materials.”

As a result of the discussions between Gathmann and the chief of bureau, and especially the suggestion by the former that his method would greatly reduce the time for drying powder, and the indicated willingness of the bureau to test the process, Gathmann wrote and delivered to Admiral O’Neil, as Chief of the Bureau of Ordnance, a letter reading as follows:

“SIR: The undersigned has made an invention, ‘Method of drying materials,’ for which patent has been filed Feb. 9, 1903, Series No. 142653. Now, in consideration of the Navy Department building an apparatus for testing this method, without expense to me, I hereby give the Navy Department the option of using my method of drying materials, if they find it to their advantage, by paying to me, my heirs, or my legal representatives \$0.01 (one cent) for each pound of material dried by my method.”

At the time the letter was delivered Gathmann also delivered to Admiral O’Neil a plan or drawing for the testing apparatus. Gathmann’s letter was dated March 24, 1903, and in reply to it the Chief of Bureau of Ordnance caused to be delivered to Gathmann a letter dated March 26, 1903, reading as follows:

“SIR: Referring to your communication of March 24, 1903, offering the Navy Department the option of using your method of drying materials, on payment of one cent per pound on materials so dried, the bureau has to inform you that it accepts your proposition and has ordered one experimental apparatus for drying smokeless powder,

constructed in accordance with plan submitted by you. This apparatus will be tested without expense to you, and, if it works satisfactorily to the bureau, the bureau agrees to pay you, your heirs, or legal representatives one cent for each pound of smokeless powder dried by the method covered by your application or applications filed or to be filed with the U. S. Patent Office, provided a patent or patents is or are issued to you therefor."

In the original petition in this case, brought in the name of Gathmann and sworn to by him, it is stated that the drawing
15 for an experimental apparatus, which he caused to be delivered to the Chief of the Bureau of Ordnance, was the same drawing which he had filed February 9, 1903, with his application for the patent above described. At any rate, in pursuance of the statements in Admiral O'Neil's letter, steps were taken to make a suitable test of the proposed method. The Government, under the direction of Gathmann, at its own expense constructed and tested at its powder plant at Indianhead the experimental apparatus and method which Gathmann had proposed. The experiment was exhaustive and in making it there were adopted all of the suggestions made by Gathmann except one, which was that after the experiments had continued for some time and were not producing the expected results Gathmann desired the apparatus to be operated continuously, but the Government declined to operate on Sundays and holidays because of the increased expense. Except this feature, all of Gathmann's suggestions were complied with. These experiments extended over a period of about a year, and a report was finally made to the department upon the results of the same.

Following this report the Bureau of Ordnance notified Gathmann under date of October 14, 1904, as follows:

"Referring to your apparatus for drying powder, installed at the naval proving ground for trial: The bureau forwards herewith a copy of the report made by the inspector of ordnance in charge of that station for your information. After carefully considering this report the bureau is of the opinion that this apparatus has failed to demonstrate anything that would warrant further experiment with it, and the bureau has instructed the inspector of ordnance in charge of the naval proving ground that, when the drier can hold no more samples, the whole amount be put in the dryhouse until dried to the proper volatiles."

Suit was brought in this court by petition, filed in the name of the said Gathmann, on April 17, 1915, more than ten years after the department's action in declining the proposal. An amended petition was filed July 31, 1919, in the name of the administratrix of Gathmann.

The alleged contract is predicated, in the original and amended petitions, upon the letter of Gathmann, dated March 24, 1903, and the reply thereto of the Chief of Bureau of Ordnance dated March 26, 1903.

It is manifest that the report to Gathmann of October, 1904, is an essential part of the transaction between the parties. The sub-

stance of this correspondence is that Gathmann, claiming to have invented a useful method of drying material, proposed to give the Navy Department "the option of using my method of drying materials if they find it to their advantage" in consideration of the department building an apparatus for testing without expense to him, and if found to its advantage and used by it upon paying him a stated sum per pound of material dried by his method. The reply of the department refers to the fact of Gathmann's "offering the Navy Department the option of using" his method, and informs him that it accepts his proposal, and had ordered an experimental apparatus constructed in accordance with the plan submitted by him, and it is significantly added: "This apparatus will be tested without expense to you, and if it works satisfactorily to the bureau"

16 the latter agreed to pay one cent per pound for powder dried by Gathmann's method. Subsequently, after a long and thorough test, the bureau informed him that the apparatus had failed to demonstrate anything that would warrant further experiment. There was inclosed to him a copy of the report made by the inspector of ordnance in charge of the station.

Clearly this correspondence does not amount to a contract between the Government and Gathmann. At most, a mere option was granted by Gathmann to the Government to use his method if found suitable after making a test of certain apparatus furnished by him, which he continued to improve or change. The Government, having made these experiments, notified him that his process was not satisfactory. His offer having been thus rejected, the option was at an end. The action here is to recover for an alleged use of the method beginning nearly five years after the rejection of the option. True it is that the plaintiff appears willing to accept payment on the basis of the original, but rejected, proposition, one cent per pound, but manifestly, if instead of claiming a contract the suit were for an infringement and plaintiff sought such amount as could be proven as damages the correspondence above mentioned would not protect the Government or limit the recovery to one cent per pound. There was never any agreement between the parties to use Gathmann's method, and all we have is, as has been stated, an option granted, declined, and terminated.

The instant case illustrates the importance of determining whether in fact a contract was made between the parties, because if one was made the court is not concerned with the question of the validity of the patent. When it is found that the defendant agreed to use a patented method or process, and did use it, the amount agreed upon as royalty becomes payable. But even in the latter case the claims in the letters patent are to be resorted to in order to ascertain whether the thing actually used is the thing comprehended within the fair scope of the claims.

When the letters patent issued to Gathmann (No. 763,387) are examined it is found that they refer to a "method of drying materials" and the specification points out that in this art it had been common to make use of "a closed circuit" and the necessary apparatus, and further that to avoid certain injurious consequences, which

more or less bulky materials are likely to suffer "when subjected ab initio to a vaporizing temperature," it had been proposed to start the operation "by first producing a vapor-laden atmosphere * * * by causing the air in a closed circuit" to absorb more or less steam while in circulation in said circuit, and finally this "saturated air has been blown out of the circuit and fresh ambient air taken in," the operation being repeated until the material is freed of its moisture and the latter blown off. Certain objections to this latter method are pointed out, and it is declared that "in those processes which are based upon the circulation of the drying medium in a closed circuit and the condensing of the vapors no means have been provided to produce a vapor-laden atmosphere in the drying chamber." The invention, it is declared, has for its object the combination of the two methods mentioned. It is, and claims to be, a "method" patent. The specification in Gathmann's Letters Patent admits the want of novelty in the elements of the combination; and the changes in the application through the Patent Office, as shown by the file wrapper and contents made an exhibit to the findings, show that neither the method of drying by circulating the drying medium in a closed circuit nor the downward direction of the drying current was new or had the property of novelty.

After numerous amendments the Gathmann application was again reviewed by the examiner in the Patent Office in June, 1903, who, speaking of one of the claims much insisted on by the applicant, rejected the claim because "the downward direction of the drying current is notoriously old." The fact must be conceded and accepted that a closed circuit comprising a drying chamber, a means of heating the air therein to a vaporizing temperature, a fan to cause or accelerate the circulation of the air or drying medium in circuit; a condenser to reduce the temperature of the heated air and thereby recover the solvent, or some of it, and help dry the powder, were all well known and had been in use, and the inquiry must be to ascertain what was the Gathmann method alleged to have been used by defendant. It must be disclosed in the claims in the letters patent, because these are statutory requirements prescribed for the very purpose of making the patentee define precisely what his invention is, and it is unjust to the public, as well as an evasion of the law, to construe the claim in a manner different from the plain import of its terms. *White v. Dunbar*, 119 U. S. 47, 52; but as stated in the case just cited, the context may undoubtedly be resorted to and often is resorted to for the purpose of better understanding the meaning of the claim.

The method for reducing the solvent and drying the powder which defendant was using in 1900 was by means of a closed-circuit apparatus, into which air was introduced, and was substantially as follows: The powder was placed into three separate containers, and these were connected severally by pipes to the closed circuit wherein the air was duly heated in a heating chamber and kept in circulation by a fan, thus projecting it downward through the powder containers, upon leaving which the solvent-laden air passed into a condensing chamber, where, by a sudden change of temperature, it was

relieved of its solvent vapors, or parts thereof, and the air passed on for a repeated circuit of the same kind of operation. This method of evaporating and saving a material portion of the ether and alcohol constituting the solvent was continued in use for perhaps a year, when it was abandoned on account of excessive leakage in the pipes caused by the great number of connecting joints necessarily employed in joining the various parts of the apparatus together to form the closed circuit.

The defendant used different devices after the one just mentioned, and if it be assumed that there was a contract between the parties the question would still be, did it use Gathmann's method?

Claim one of the letters patents calls for "Producing a vapor-laden atmosphere in a space containing the substance to be dried," and causing this vapor-laden atmosphere "to flow downwardly through said space," maintaining the circulation until the atmosphere is saturated with vapor, and then by lowering the temperature of said atmosphere during its passage to cause a condensation and a consequent saving of the solvent. There is under this method an exclusion of ambient air. The method so described was to be effectuated

18 by heating the powder so that the atmosphere above it in the powder chamber would become vapor-laden from the evaporation of the alcohol and ether in the powder mass. This being accomplished, the vapor-laden atmosphere was caused to pass downward through the powder to the lower level, where the condensation occurs, as has been stated, and it then passed on in the closed circuit to where it was taken up by the fan and projected into a heating device, whence it repeated its tour of the closed circuit. It was claimed that this method saved considerable amounts of the solvent as well as dried the powder quicker and to a more even degree. Gathmann claimed that by first obtaining a vapor-laden atmosphere in the space occupied by the powder to be dried he thereby maintained throughout its subsequent journeys in the closed circuit a degree of uncondensed volatiles within the said atmosphere which kept the powder moist, thus preventing a surface crust and drying it more thoroughly and evenly. Claim one, then, is limited, by reference to the claim and specification, to producing a vapor-laden atmosphere in the space occupied by the powder—the powder chamber. The defendant never at any time used such a method.

Claim two is much broader than claim one, and, unless read in connection with and in the light of the specification, comes within one or more of the rejections interposed by the Patent Office to some of the numerous amendments offered while the application was in that office; and further, unless so read, the claim amounts to nothing more than what the specification declares at its outset, "it has been common to make use of." Either of those conditions is to be avoided in construing the claim.

The specification mentions two familiar processes and that in neither of them has means been provided "to produce a vapor-laden atmosphere in the drying chamber." It declares that the "invention has for its object the combination of two described methods," so improved as that "a substantially vapor-saturated atmosphere in the drying chamber" is maintained nearly to the end of the drying

process. One of the principal advantages supposed to flow from the process was that the vapor-laden atmosphere would prevent the outside of the grains of powder from becoming encrusted and dried, while the interior of the grain maintained a large amount of moisture.

Continuing its description, the specification describes the operation of the apparatus by reference to certain drawings, and states that after the substance to be dried has been placed in the drying chamber and "the latter closed and cut out of the circuit by closing" a designated valve, "a vapor-saturated atmosphere is produced in the drying chamber," which, it is stated, may be done in various ways. These ways are, first, by supplying heat to the heater condenser located under the drying chamber and heating the substance to be dried and the air in the drying chamber until the air has become saturated, "or, in other words, to have reached the dew point," and in the meantime heat is being applied to the heater located on the opposite side of the apparatus from the drying chamber, and having for its purpose the supplying of heat to the atmosphere when the circulation through the closed circuit proceeds; or, second, by heating the substance to be dried until the air "confined in the drying chamber is more or less laden with vapor," and then re-establishing the circulation until the air "becomes saturated with vapor, or, in other words, has reached the dew point;" or
19 thirdly, by proceeding as described under first or second, and also injecting steam "into the drying chamber."

While thus describing his process, the claims two, three, and four are for methods of drying in which an atmosphere "saturated with vapor" is produced before condensation is allowed to set in, the difference in the three claims consisting principally in the time and place of producing the saturated atmosphere. In claim two the circulation is started and continued until there is a saturated atmosphere; in claim three the drying medium is treated "while confined in the space containing the substance to be dried," and then starting a circulation which is maintained until the drying medium is "saturated with vapor," then reduced and condensed to an extent; and in claim four the drying medium is heated to a vaporizing temperature while confined in the drying chamber, then the "so-heated medium" is set in motion and allowed to condense on a lower level.

The medium which is thus heated to a vaporizing temperature while confined in the drying chamber (according to claim four) is heated to a vaporizing temperature while in circulation (according to claim two); and in claim two the circulation is maintained until the drying medium "is saturated with vapor." Then, and not until then, is any condensation allowed to take place. The specification and claim two, alike, call for a vapor-saturated atmosphere and the claim can not be read so broadly as to cover methods which omit some of its essential elements. The defendant's box-type method used in 1910, or subsequently, did not seek to create or maintain an atmosphere saturated with vapor, or to cause the heated air to be fully or partially saturated with vapor when it entered the drying

chamber. In the Government's method there was no attempt to limit or to regulate the extent of condensation in order to maintain a saturated atmosphere. On the contrary, its method had the purpose of extracting all the solvent that could be extracted, as and when the medium passed through the condenser.

If, therefore, it be assumed that there were contractual relations between the parties, it can not be said that the Government used plaintiff's method of drying powder. But, as already stated, there was no contract after the rejection of Gathmann's proposal.

The petition should be dismissed. And it is so ordered.

Graham, Judge; Hay, Judge; and Downey, Judge, concur.

BOOTH, *Judge*, dissenting:

The allegations of the petition in this case disclose a suit founded upon an express contract to pay royalties for the use of a patented method for drying smokeless powder. In describing the various steps of a detailed method, claimed as original, it is difficult to make it clear, apart from the apparatus employed to effectuate it, especially so where the method claimed is so slight a deviation from ones of a similar character long in use. Smokeless powder grains vary in size and are formed "from a soft, plastic mass which owes its condition to a considerable content of alcohol and ether, this combination of fluids being familiarly referred to as the 'solvent.'" The plastic mass thus formed is forced through a perforated die, resulting in long strips of the same, similar to "macaroni." After cutting said strips into the desired lengths it becomes indispensable to
20 reduce the solvent in the powder from 40 to at least 5 or 6 per cent. This is accomplished by a drying process. To dry the powder and reduce the ether-alcohol solvent is manifestly free from much difficulty, involving at best a considerable length of time and the wasting of the ether-alcohol solvent, but to dry the powder quickly, reduce the solvent, and save a large percentage of the latter for future use, involves the exercise of the inventive genius. To this particular phase of the matter the plaintiff directed his especial attention.

The specifications and various claims of the patents in suit, if I correctly apprehend them, cover a single novel conception in this particular art. I say this because of the express disclaimer set forth in the second paragraph of plaintiff's Letters Patent No. 763,387, wherein express recognition is acknowledged of previous and used methods, differing only from the patentee's method in this one particular feature and which we believe to be further confirmed by the long and somewhat tedious passing of the claims to patent by the Patent Office. Starting, then, with the conceded fact that a closed circuit comprising a drying chamber, a means of heating the air therein to a vaporizing temperature; likewise a fan to cause the circulation of the heated air in the circuit, as well as a condenser employed to reduce the temperature of said heated air and thereby recover the ether-alcohol solvent and dry the powder, were in use and well known, the issue is somewhat simplified by ascertaining

from the record in what particular did the plaintiff change this established method in a way that is new and novel, for which he was granted letters patent, and which, in so far as this suit is concerned, is fully covered and protected by the same. In other words, what is his patented method?

The officers of the defendant had not been idle, nor had previous inventors failed to recognize the necessity for a method of accomplishing the very purpose the plaintiff set out to accomplish, and this is made more emphatic by the long list of patents set out in Finding X depicting the state of the art.

Resorting first to the claims of the plaintiff's letters which in law are required "for the very purpose of making the patentee define precisely what his invention is; and it is unjust to the public, as well as an evasion of the law, to construe it in a manner different from the plain import of its terms" (*White v. Dunbar*, 119 U. S., 47, 52), and then contrasting and comparing them with the prior state of the art, fixes the scope of the invention granted in the Letters Patent, as well as positively identifying the real invention.

The defendant in 1900 was using a method for reducing the ether-alcohol solvent and drying smokeless powder which consisted of the introduction of atmosphere into a closed circuit apparatus erected by a combination of the following parts. The powder was deposited into three separate powder containers connected respectively by pipes to the closed circuit, in which the atmosphere was duly heated in a heating chamber, and kept in circulation by a fan, thus projected downwardly through the powder chambers, after leaving which the solvent-laden air passed into a condensing chamber, where by the sudden change of temperature it was relieved of its solvent vapors, the ether and alcohol collected, and the air passed on for a repeated circuit of the same operation. This method of evaporating and saving a material portion of the ether-alcohol

21 content of the powder was continued for about, or perhaps, a year's time, when it was abandoned on account of excessive leakage in the pipes caused by the great number of connecting joints, necessary to join the various parts of the apparatus together in forming the closed circuit. Thereafter, so far as the record discloses, the defendant accomplished nothing of material value in evolving an efficient method until subsequent to 1903, when the plaintiff submitted his method.

Claims one of plaintiff's Letters Patent describe a predominating feature which differentiates it from the method employed by the Government prior to this time, and seems to me to define the scope and identity of his patented method covered by said claims, which, in so far as these claims are concerned, sets forth the real invention. It is, to use in part the language of the claims, "producing a vapor-laden atmosphere in a space containing substance to be dried," and then by the same processes heretofore described, starting and continuing the circulation of said vapor-laden atmosphere until the same "is saturated with vapor," under the exclusion of ambient air, after which it is condensed in the cooling temperature of the condensing chamber, and the solvent saved. The method so described

was effectuated by introducing in the bottom of the powder container a coil capable of being used as both a cooling and a heating device. With this device used first as a heater—the plaintiff says “condenser heater”—the powder is heated and the atmosphere above being confined to the powder chamber, becomes vapor laden. After the atmosphere becomes thus vapor laden the device used to confine it in the powder chamber is released, and the same is caused to pass downwardly through the powder into a space on a lower level, the condenser heater having in the meantime been converted from a heating to a cooling coil, whereby the vapor-laden atmosphere is relieved of a part of its vapor, then passed on in the closed circuit to a point where a fan takes it up, projecting it into a second heating device, thus restoring its lost heat, after which it again proceeds to the powder chamber, to repeat its tour of the closed circuit. The claimed merit of the method is said to be an appreciable saving of the solvents, as well as the drying of the powder to an even degree throughout its entire bulk. The plaintiff insists that by first obtaining a vapor-laden atmosphere in the space occupied by the powder to be dried, he thereby maintained throughout the subsequent journeys of said atmosphere around the closed circuit a certain degree of uncondensed volatiles within said atmosphere which kept the powder moist, and prevented a surface crust thereon, drying it from the inside out, and thus effecting a larger condensation of the ether and alcohol, which had not theretofore been done without the admission of ambient air to the closed circuit. Claim one, then, as I view it, is limited by reference to the claim and specifications to the creation of a vapor-laden atmosphere in the space occupied by the powder, i. e., the powder chamber. It obviously could not be otherwise and attain the dignity of invention. The defendant never at any time used the method covered by claim one.

This conclusion is rested upon what claim 1 discloses as the primary conception of the inventor, for which novelty is claimed, and certainly can not be extended to include more than an alleged original method whereby a vapor-laden atmosphere is first brought into being inside the space occupied by the powder and continued in circulation until it becomes saturated, so as not to at any time condense the full proportion of the ether-alcohol solvent, thus retaining sufficient quantity of the solvent in the atmosphere to maintain the necessary degree of moisture in the powder itself to prevent crustation. The inventor by express language sustains the same by himself specifying provisions for introducing outside vapors, if necessary, to sustain this very atmospheric condition.

Claim 2 of the plaintiff's method, as appears from Letters Patent No. 763,387, is much broader, and when read in connection with the method used by the defendant from 1910 to 1916, known as the “box type,” seems to so clearly approach it that their identity becomes merged. Treating the invention relied upon by the plaintiff as strictly a method patent, it would be difficult indeed to differentiate the method employed by the defendant from the one described in claim 2. Claim 2 is not ambiguous; the language of the claim is

obviously free from need of construction to ascertain the meaning of the same, and, inasmuch as the case is concededly a contract one, its validity is not involved. The Patent Office passed the claim; it is broad and comprehends the very method employed by the defendant to attain the results attained by the "box type" device. The "box type" device, as to two features, is conceded in the defendant's brief to anticipate claim 2 of plaintiff's patent, and the defendant's expert witness accurately portrays the method in language so decidedly apt as to warrant the conclusion that the methods are identical. The machines were decidedly different; the method seems identical. In the "box type" device the atmosphere is first heated to a vaporizing temperature, passes into the top of the box or powder chamber, where it comes into contact with powder and becomes saturated with the ether-alcohol solvent, and it then passes downward through the powder, through the condensing chamber into a chamber on a lower level where it is relieved of a portion of the solvent, and then up again to the heating chamber, restoring its lost heat, whereupon the process is repeated to the exclusion of ambient air. This method was used by the defendant from 1910 to 1916. *Harvey Steel Co. v. United States*, 196 U. S., 310.

The letter of March 26, 1903, from Admiral O'Neil to the plaintiff, as set forth in Finding V, precludes the denial of an existing contract between the parties if the plaintiff met all the conditions of the same. It seems to me that the Government is put in the rather awkward situation of seeking to repudiate a contract to pay for the use of a patented invention "if it works satisfactorily to the bureau," because the findings specifically disclose that after various experimentations they returned in the end to the use of the apparatus disclosed in claim 2 to them by the plaintiff and which was, in the first instance, of sufficient importance to excite their immediate attention and interest. The only issue presented for our determination, as held in the case of *United States v. Harvey Steel Co.*, *supra*, is whether the defendant used the invention covered by the plaintiff's letters patent, and the only purpose of going into the prior art is to ascertain what the invention was.

For the reasons above stated I am unable to agree with the opinion of the court, but am firmly convinced that the plaintiff is entitled to recover.

VI. Judgment of the Court.

At a Court of Claims held in the City of Washington on the Thirty-first day of May, A. D., 1921, judgment was ordered to be entered as follows:

The Court, upon due consideration of the premises find in favor of the defendant, and do order, adjudge and decree that Olga Gathmann, administratrix of the estate of Louis Gathmann, deceased, as aforesaid, is not entitled to recover and shall not have and recover any sum in this action of and from the United States; and that the petition herein be and the same is hereby dismissed: And it is

further ordered, adjudged and decreed that the defendant shall have and recover of and from the plaintiff, as aforesaid, the sum of One hundred and forty dollars and forty cents (\$140.40) the cost of printing the record in this court, to be collected by the Clerk, as provided by law.

By THE COURT.

VII. *Proceedings After Entry of Judgment.*

On June 27, 1921, plaintiff made a motion to amend the findings of fact. This motion was overruled by the Court on October 10, 1921.

VIII. *Plaintiff's Application for and Allowance of Appeal.*

The claimant hereby applies for an appeal to the Supreme Court of the United States.

DUDLEY & MICHENER,
Attorneys of Record.

CHARLES J. PENCE,
Of Counsel.

Filed Oct. 17, 1921.

Ordered: That the above appeal be allowed as prayed for.
October 17, 1921.

By THE COURT.

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Court of Claims.

No. 33052.

OLGA GATHMANN FOLEY, Administratrix of the Estate of Louis
Gathmann, Deceased,

vs.

THE UNITED STATES.

I, F. C. Kleinschmidt, Assistant Clerk Court of Claims, certify that the foregoing are true transcripts of the pleadings in the above-entitled cause; of the argument and submission of case; of the findings of fact, conclusion of law, opinion of the Court by Campbell, Ch. J., and of the dissenting opinion by Booth, J.; of the judgment of the Court; of the plaintiff's application for and the allowance of an appeal to the Supreme Court of the United States.

In testimony whereof I have hereunto set my hand and affixed the seal of said Court at Washington City this 27th day of October, A. D., 1921.

[Seal of the Court of Claims.]

F. C. KLEINSCHMIDT,
Assistant Clerk Court of Claims.

Endorsed on cover: File No. 28,556. Court of Claims. Term No. 601. Olga Gathmann Foley, administratrix of the estate of Louis Gathmann, deceased, appellant, vs. The United States. Filed October 29th, 1921. File No. 28,556.

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